



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

1875 New Hope Street
Norristown, PA 19401
215 270-1975

November 6, 1990

Mr. De Norris Williams
Scott Paper Company
Front and Avenue of the States
Chester, PA 19013

Re: Underground Storage Tank Program
Scott Paper Company
City of Chester
Delaware County

Dear Mr. Williams:

This letter is to acknowledge receipt of your October 19, 1990 letter requesting an extension for completion of various tasks included in the Groundwater and Soil Remediation Proposed Work Plan. Your extension is granted in accordance with the dates outlined in the October 19th letter.

Based on the results of the background sampling, we concur that 250ppm TPH is the site specific background concentration and bio-remediation goal for contaminated soils.

If you have any questions, please feel free to contact me.

Very truly yours,

CYNTHIA L. STEELE
Chief, Storage Tank and Nonpoint
Source Section

cc: Mr. Breitenstein
Mr. Day-Lewis
Mr. Perry
Re 30 (3) 309.5

SCOTT

SCOTT WORLDWIDE

October 19, 1990

Mr. Richard K. Breitenstein
Water Quality Specialist
Pennsylvania Department of
Environmental Resources
1875 New Hope Street
Norristown, PA 19401

RE: Scott Paper - Chester Operations
Background Sampling Coal Yard

Dear Mr. Breitenstein:

The purpose of this letter is to inform you of the results of soil sampling in the coal yard conducted by Groundwater Technology, Inc. on August 29, 1990. The purpose of the sampling was to obtain data to be used to define clean-up goals for the proposed bioremediation of the previously excavated soils. Based on the results of the sampling, we are proposing to remediate the soil based on a TPH concentration of 250 ppm. This value was derived by taking the average concentration of the samples, eliminating the highest and lowest values. This resulted in an average TPH concentration of 243 ppm.

Enclosed you will find the results of coal yard sampling conducted by Groundwater Technology, Inc. As requested in your letter dated August 13, 1990, the samples consisted of six composite samples taken at depths of 12 to 18 inches.

In order to continue with the next phase of the remediation plan, we would appreciate that any direction from the Department of Environmental Resources on revisions to the testing plan be conveyed to us by November 2, 1990.

If you have any questions or concerns regarding the information enclosed in this letter, please call me at 215-499-6043.

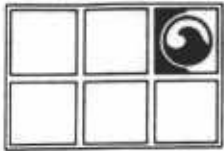
Sincerely,



DeNorris Williams
Process Engineer

cc: R. K. Anderson
M. M. Caron - Staff
D. R. Haldeman
A. E. Perry - Groundwater Technology, Inc.

jmh



GROUNDWATER TECHNOLOGY, INC.

Rt. 1, Chadds Ford West, Chadds Ford, PA 19317 (215) 388-1466

Fax (215) 388-6298

September 20, 1990

Refer: 01303-9342

Mr. David Haldeman
Scott Paper Company
Front and Avenue of the States
Chester, PA 19013

RE: Results of Background Sampling
Coal Yard
Chester Operations Facility

Dear Dave:

This letter presents the results of the soil sampling recently performed in the Coal Yard by Groundwater Technology. The purpose of the sampling was to aid in identifying clean up goals for the proposed bioremediation of previously excavated soils. The sampling plan was approved by Ms. Kelly Kincaid of the Pennsylvania Department of Environmental Resources (DER).

On August 29, 1990, soil samples were collected from just below the ground surface at various locations throughout the Coal Yard. The sampling protocol and general locations had been previously approved by the DER. Exact sample locations are shown on the enclosed map of the Coal Yard.

Each soil sample was collected using a hand augering tool at a depth of approximately 12 to 18 inches. Six grab samples were submitted for laboratory analysis by EPA Method 8020 for aromatic hydrocarbons, specifically benzene, toluene, ethylbenzene and xylenes (BTEX). Sets of three samples were composited in the field. A total of six composite samples was submitted for analysis by EPA Method 503 D&E for total petroleum hydrocarbons. The samples were composited as shown below:

Composite 1	SSII-1 to -3
Composite 2	SSII-4 to -6
Composite 3	SSI-1 to -3
Composite 4	SSI-4 to -6
Composite 5	SSIII-1 to -3
Composite 6	SSIII-4 to -6

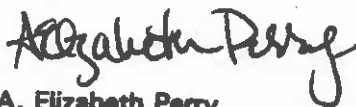
Mr. D. Haldeman
Scott Paper Company
September 20, 1990

Page 2

The results of the analyses are enclosed. Concentrations of TPH ranged from not detected to 2,500 parts per million (ppm) with an average of 578 ppm. Of the aromatic hydrocarbons, only toluene was detected in one of the samples at a concentration of 0.19 ppm. The average of the total BTEX in the six samples was 0.03 ppm.

If you have any questions or comments, please do not hesitate to call.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.



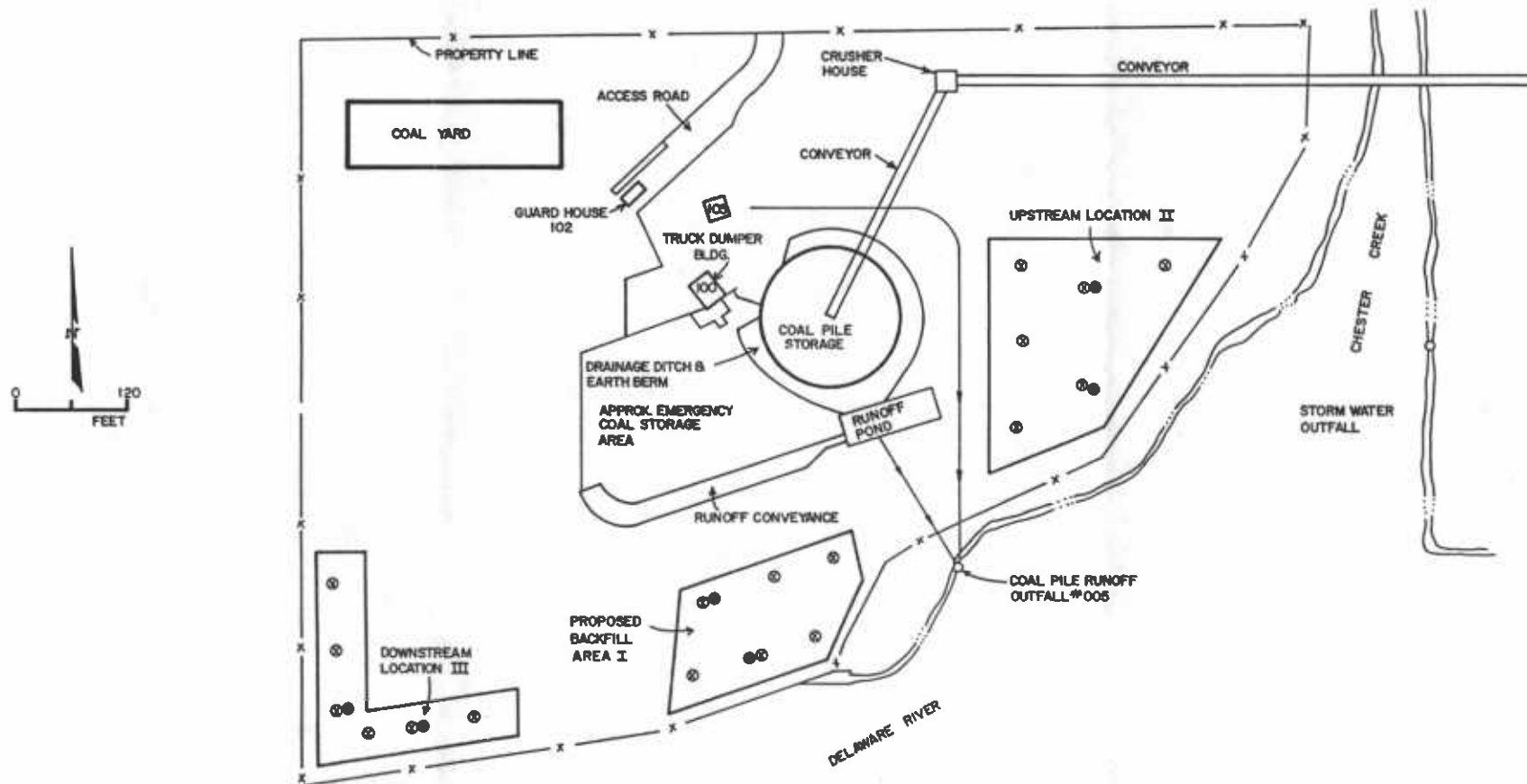
A. Elizabeth Perry
Hydrogeologist

sep/s
Enclosures

Copy: D. Williams - Scott Paper Company



GROUNDWATER
TECHNOLOGY, INC.



PROPOSED SOIL SAMPLING / COAL YARD
SCOTT PAPER COMPANY
CHESTER, PA.

- ⊙ SAMPLING LOCATION
- BTEX SAMPLING LOCATION



GROUNDWATER
TECHNOLOGY, INC.



Northeast Region

Meadowbrook Industrial Park
Milford, NH 03055
(603) 672-4835
(603) 673-8105 (FAX)

Client Number: 013039342
Project ID: Not Provided
Work Order Number: N0-08-930

September 13, 1990

Elizabeth A. Perry
Groundwater Technology, Inc.
U.S. Route 1
Chadds Ford, PA 19317

Dear Ms. Perry:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 8/31/90 under chain-of-custody record 27498.

A formal Quality Assurance / Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

A handwritten signature in dark ink, appearing to read 'Mark M. Emmons', is written over the typed name.

Mark M. Emmons
Gas Chromatography Manager

Client Number: 013039342
 Project ID: Not Provided
 Work Order Number: N0-08-930

Table 1
ANALYTICAL RESULTS

Aromatic Volatile Organics in Soil
EPA Method 8020^a

GTEL Sample Number		08930-01	08930-02	08930-03	08930-04
Client Identification		SSII-1	SSI-1	SSII-6	SSIII-4
Date Sampled		8/29/90	8/29/90	8/29/90	8/29/90
Date Analyzed		9/08/90	9/08/90	9/08/90	9/08/90
Analyte	Detection Limit, mg/kg	Concentration, mg/kg			
Benzene	0.10	< 0.11	< 0.08	< 0.09	< 0.08
Toluene	0.25	< 0.28	< 0.20	< 0.24	< 0.20
Ethyl Benzene	0.40	< 0.46	< 0.32	< 0.38	< 0.32
Xylenes (total)	0.85	< 0.97	< 0.67	< 0.80	< 0.67
BTEX (total)	--	--	--	--	--
Detection Limit Multiplier ^b		1.14	0.79	0.94	0.79
Percent Solids, %		91.1	89.2	90.9	97.5

GTEL Sample Number		08930-05	08930-06	--	--
Client Identification		SSIII-2	SSI-6	--	--
Date Sampled		8/29/90	8/29/90	--	--
Date Analyzed		9/08/90	9/08/90	--	--
Analyte	Detection Limit, mg/kg	Concentration, mg/kg			
Benzene	0.10	< 0.08	< 0.10	--	--
Toluene	0.25	0.19	< 0.25	--	--
Ethyl Benzene	0.40	< 0.30	< 0.40	--	--
Xylenes (total)	0.85	< 0.64	< 0.86	--	--
BTEX (total)	--	0.19	--	--	--
Detection Limit Multiplier ^b		0.75	1.01	--	--
Percent Solids, %		90.7	90.6	--	--

- a Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986; Methanolic extraction by EPA Method 5030 (purge and trap). Results are reported on a dry weight basis.
- b The detection limit multiplier indicates the adjustments made to the data and detection limits as a result of dilutions and percent solids.



Northeast Region

Meadowbrook Industrial Park
Milford, NH 03055
(603) 672-4835
(603) 673-8105 (FAX)

Client Number: 013039342
Project ID: Not Provided
Work Order Number: NO-08-929

September 7, 1990

Elizabeth A. Perry
Groundwater Technology, Inc.
U.S. Route 1
Chadds Ford, PA 19317

Dear Ms. Perry:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 8/31/90 under chain-of-custody records 27498 and 27499.

A formal Quality Assurance / Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Chris J. Miller
Inorganics Manager

Client Number: 013039342
Project ID: Not Provided
Work Order Number: NO-08-929

Table 1

ANALYTICAL RESULTS

**Total Recoverable Petroleum Hydrocarbons in Soil
by Infrared Spectrometry
Method 503 B^a**

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Percent Solids, %	Detection Limit, mg/kg	Concentration, mg/kg
GTEL No.	Client ID						
08929-01	COMPOSITE 2	8/29/90	9/04/90	9/04/90	93.3	140	2500
08929-02	COMPOSITE 5	8/29/90	9/04/90	9/04/90	92.0	28	180
08929-03	COMPOSITE 4	8/29/90	9/04/90	9/04/90	94.3	28	290
08929-04	COMPOSITE 1	8/29/90	9/04/90	9/04/90	98.0	26	210
08929-05	COMPOSITE 3	8/29/90	9/04/90	9/04/90	81.8	31	290
08929-06	COMPOSITE 6	8/29/90	9/04/90	9/04/90	95.2	26	< 26

- a Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985; extraction and treatment by methods 503 D (Soxhlet) and 503 E. Concentration calculated on a dry weight basis.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

1875 New Hope Street
Norristown, PA 19401
215 270-1975

August 13, 1990

Mr. David R. Haldeman
Scott Paper Company
Front and Avenue of the States
Chester, PA 19013

Re: Scott Paper - Chester Facility
Soil Remediation Background Sampling
City of Chester
Delaware County

Dear Mr. Haldeman:

We are in receipt of the July 2, 1990 background sampling plan completed for you by Groundwater Technology, Inc. (GTI), for the above referenced site. To summarize, you intend to analyze three composite soil samples for total petroleum hydrocarbons (TPH) and six discrete samples for benzene, toluene, ethylbenzene and xylenes (BTEX). Though we typically do not approve of composite sampling, we will grant an exception in this case as the purpose of sampling is to determine background, not to delineate the extent of contamination. However, we request that a maximum of three discrete samples be combined to form each composite sample, not six discrete combined to form each composite. This modification will result in six composite samples to be analyzed for TPH. Also, the depth of sampling is not addressed in the GTI proposal. We ask that samples be collected from a depth greater than one foot. Lastly, the sample locations as shown on the GTI plan are acceptable.

Should you have any questions, you may contact me at (215) 270- 1975.

Very truly yours,

Kelly L. Kinkaid

KELLY L. KINKAID
Hydrogeologist

cc: Mr. O'Neill
Ms. Steele
Mr. Breitenstein
Ms. Perry - Groundwater Technology, Inc.
City of Chester
Re (5)221.4

(30)



GROUNDWATER TECHNOLOGY, INC.

Chadds Ford West, Rt. 1, Chadds Ford, PA 19317 (215) 388-1466

Fax: (215) 388-6298

July 2, 1990

Refer: 01303-9342

Mr. David R. Haldeman
Scott Paper Company
Front and Avenue of the States
Chester, PA 19013

**RE: Bioremediation work plan development
Proposed background sampling
Coal Yard
Chester Operations Facility**

Dear Dave:

As requested by the Pennsylvania Department of Environmental Resources (PADER), this letter presents a proposed sampling plan to determine background soil quality at the Coal Yard. The results of the sampling will be used to determine bioremediation cleanup goals.

For the purposes of sampling, the coal yard has been divided into three sections of interest. The first is the area in which the soil is expected to be placed following clean up. The other two areas are also located within the coal yard up- and downriver from the first. These three areas are shown on the attached coal yard map.

Within each of the three areas, six soil samples will be collected. The six samples from each area will be field composited to a single sample. The three composite samples will be submitted for laboratory analysis for total petroleum hydrocarbons (TPH). The eighteen individual sample locations are also shown on the enclosed map. In addition, two grab samples will be collected from each of the areas and will be submitted for analysis for benzene, toluene, ethylbenzene and total xylenes (BTEX). The samples for the volatiles will not be composited due to potential loss of compounds that can occur during the compositing process.

A hand auger will be used to collect each soil sample. Samples will be collected at the six-inch to twelve-inch depth.

Mr. D. Haldeman
Scott Paper Company
July 2, 1990

Page 2

Based on experiences at other sites, Groundwater Technology recommends that an average of all analyses be used to define the remediation goals.

A cost estimate for the proposed sampling program is enclosed. If you have any questions or comments, please do not hesitate to call.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.



A. Elizabeth Perry
Hydrogeologist



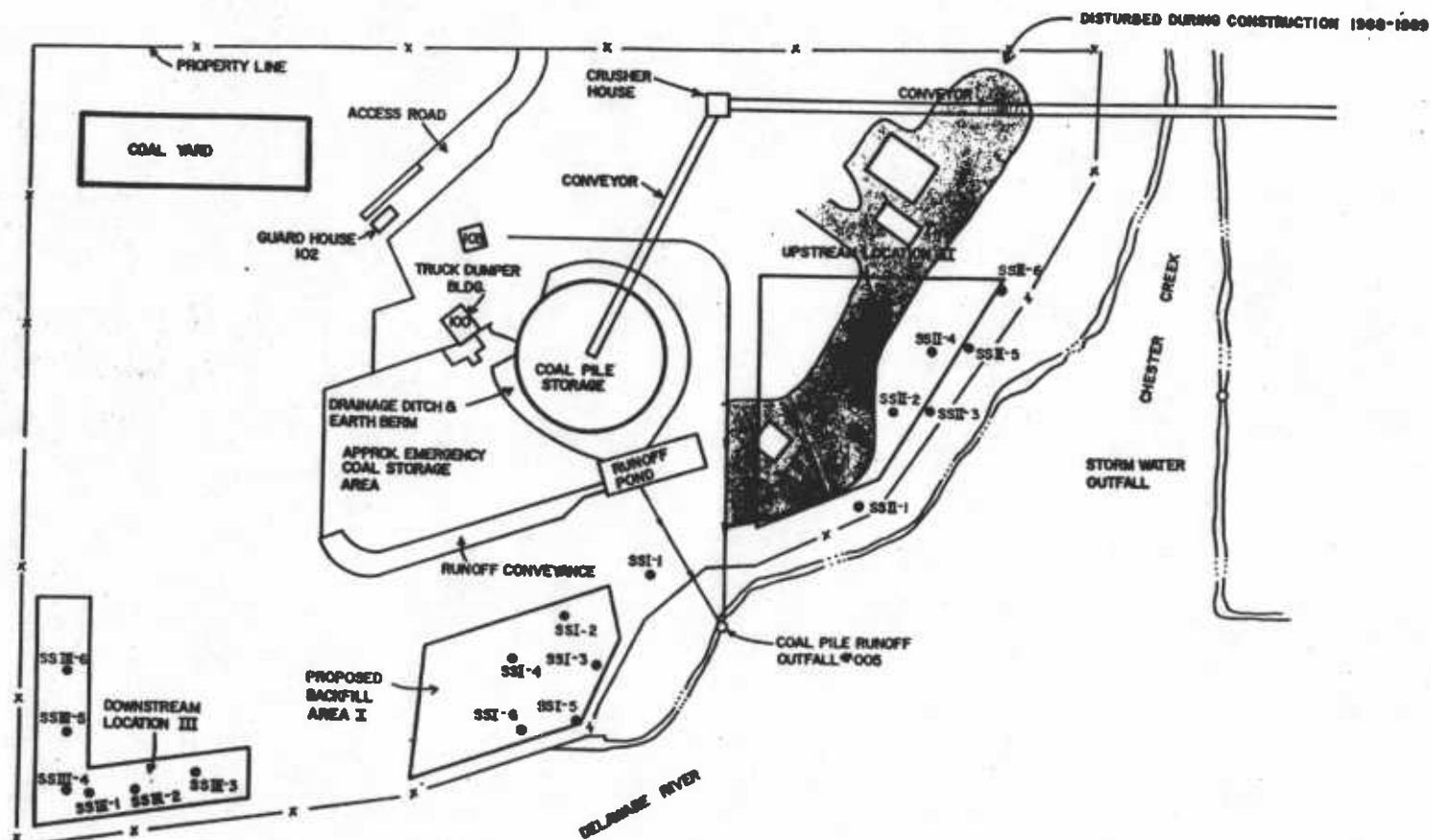
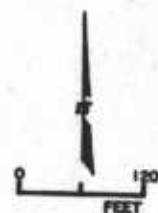
Paul Miller, P. E.
District Manager

aep/s

Enclosures



GROUNDWATER
TECHNOLOGY, INC.



SOIL SAMPLING/COAL YARD
 SAMPLING DATE: AUGUST 28, 1990
 SCOTT PAPER COMPANY
 CHESTER, PA.



GROUNDWATER
 TECHNOLOGY, INC.

173
115

July 18, 1990

Ms. Kelly Kincaid
Hydrogeologist
Pennsylvania Dept. of
Environmental Resources
1875 New Hope Street
Norristown, PA 19401

RECEIVED
90 JUL 21 AM 2:24
DER-ENV. PROTECTION
NORRISTOWN

RE: Soil Remediation Work Plan
Background Sampling

Dear Ms. Kincaid:

Please find attached a proposed sampling plan developed by Groundwater Technology, Inc. (GTI) to determine the quality of the background soil in the Chester Facility's coal yard. The results of this sampling work will be used to determine bioremediation cleanup goals as we had previously discussed in a meeting involving the Department, GTI personnel, and the writer.

In order to continue progress towards the implementation of the remediation plan, we would like to start this background sampling work during the week beginning August 6, 1990. We would appreciate that any direction from the Department on revisions to the testing plan be conveyed to us by that date.

If you have any comments or questions concerning the information supplied with this letter, please contact me at (215) 499-6104.

Sincerely,

David R. Haldeman

David R. Haldeman
ENVIRONMENTAL SPECIALIST

cc: Mr. R. K. Anderson
Mr. M. M. Caron - Staff
Ms. A. Elizabeth Perry - Groundwater Technology, Inc.